

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) An intra-aortic balloon catheter comprising;

a balloon part adapted to be inserted inside the aorta and inflating and deflating to assist the heart function,

an outer tube with a distal end connected to a proximal end of said balloon part to introduce and guide out pressurized fluid inside of said balloon part, and

an inner tube to which a distal end of said balloon part is connected and extending through the insides of said balloon part and said outer tube in the axial direction, wherein

said inner tube is fused or adhered with the inside wall of said outer tube over a length of 50% or greater of the total length from the distal end of the outer tube, and

an engagement means engages said inner tube with the inside wall of said outer tube at the distal end of said outer tube,

the engagement means includes an engagement hole formed at the distal end of the outer tube, and

said inner tube is inserted in said engagement hole for engagement with the inside wall of said outer tube.

2. (Currently Amended) The intra-aortic balloon catheter as set forth in claim 1, wherein the distal end of said outer tube is formed with a cut that extends in the circumferential direction of said outer tube at a predetermined distance away from ~~the a~~ distal end opening face of said outer tube toward the proximal end, and

~~an~~ the engagement hole, enabling insertion of said inner tube, is formed by part of the wall of said outer tube positioned in the distance from said cut to said distal end opening face, constituting a cut piece, being pushed in toward the inside of said outer tube, and

~~said inner tube is inserted in said engagement hole for engagement with the inside wall of said outer tube.~~

3. (Original) The intra-aortic balloon catheter as set forth in claim 2, wherein the distal end opening face of said outer tube forms an acute angle with a longitudinal axis of said outer tube.

4. (Currently Amended) The intra-aortic balloon catheter as set forth in claim 3, wherein said engagement hole is formed with said cut piece positioned so that it protrudes from ~~a~~ the distal end opening face of said outer tube to ~~the a~~ distal end side.

5. (Original) The intra-aortic balloon catheter as set forth in claim 1, wherein the outside diameter of said inner tube positioned at the distal end side from said engagement means is larger than the outside diameter of said inner tube positioned at the proximal end side from said engagement means.

6. (Currently Amended) A balloon catheter comprising;

a balloon part able to be inflated and deflated,

an outer tube with a distal end connected to a proximal end of said balloon part so as to introduce and guide out pressurized fluid inside of said balloon part, and

an inner tube to which a distal end of said balloon part is connected extending along the insides of said balloon part and said outer tube in the axial direction, wherein

the distal end of said outer tube is formed with a cut that extends in the circumferential direction of said outer tube at a predetermined distance away from ~~the~~a distal end opening face of said outer tube toward the proximal end,

an engagement hole enabling insertion of said inner tube is formed by part of the wall of said outer tube positioned in the distance from said cut to said distal end opening face, constituting a cut piece, being pushed in toward the inside of said outer tube, and

said inner tube is inserted in said engagement hole for engagement with the inside wall of said outer tube.

7. (Original) The balloon catheter as set forth in claim 6, wherein the distal end opening face of said outer tube forms an acute angle with a longitudinal axis of said outer tube.

8. (Currently Amended) The balloon catheter as set forth in claim 7, wherein said engagement hole is formed with said cut piece positioned so that it protrudes from ~~a~~the distal end opening face of said outer tube to ~~the~~a distal end side.

9. (Original) The balloon catheter as set forth in claim 6, wherein the outside diameter of said inner tube positioned at the distal end side from said engagement means is larger than the outside diameter of said inner tube positioned at the proximal end side from said engagement means.

10. (Currently Amended) ~~The balloon catheter as set forth in claim 6, used for the intra-aortic balloon pumping~~A method of assisting heart function, comprising:
carrying out intra-aortic balloon pumping with the balloon catheter of claim 6 including:
inserting the balloon part inside the aorta; and
inflating and deflating the balloon part.